



E. I. DU PONT DE NEMOURS & COMPANY

INCORPORATED

P. O. BOX 1217

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PLASTIC PRODUCTS AND RESINS DEPARTMENT

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Complainant's
Exhibit No. 12

October 10, 1979

PERSONAL AND CONFIDENTIAL

TO: R. M. SHEPHERD
ENERGY AND ENVIRONMENTAL AFFAIRS
WILMINGTON

FROM: J. F. DOUGHTY
WASHINGTON WORKS

J. F. Doughty

ORGANIC FLUORIDES IN BLOOD ANALYSES

A table is attached showing the results we have obtained. We plan to update the table when additional work history information is available on the monomer operators.

JFD:mps
Attachment

000176

EID080732

4JP001331

ORGANIC FLUORIDES IN BLOOD SAMPLES

<u>NAME</u>	<u>P.R. NO.</u>	<u>ZONE</u>	<u>ORGANIC FLUORIDE PPM</u>	<u>COMMENTS</u>
GRANULAR OPERATORS				
<u>Polymerization</u>	REDACTED	6	0.47	8/60-6/71, 12/72 to present
		6	2.33	Exposure since 1968, granular polymerization since 2/74.
		6F	0.52	Special job. Relief on granular polymerization about 1 day/week 2/69 to present.
		6	3.54	F.P. P.O. 8/62 to 3/69, FEP polymerization 8/69 to 7/70, polymerization 12/71 to present
		6	5.61	12/72 to present, others jobs since 5/55
		6	3.91	9/71 to present.
		6	6.84	FP, P.O. 9/65 to 12/72, polymerization 9/73 to present
		6	2.23	3/76 to present.
<u>Finishing</u>		4	2.06	Disp. P.O. 9/71 to 7/72, details to polymerization 5/76 to present.
		4	0.69	Detailed to polymerization 65 days in past 5 months.
		4	0.72	Detailed to granular polymerization 8 of last 10 weeks as of 9/13/79.
<u>FINE POWDER/DISPERSION OPERATOR</u>				
<u>Polymerization</u>		6	4.39	F.P. Dryers and Disp. P.O. 9/76 to 4/79, Polymerization 4/79 to present.
		6(22.17)	21.22	Service operator jobs 6/56 to 6/60, polymerization since 2/63.

() Previous blood samples taken in June.

000177

EID080733

NAME	P.R. NO.	ZONE	ORGANIC FLUORIDE PPM	COMMENTS
<u>Polymerization (Cont.)</u>				
REDACTED		6	0.17	8/76 to present.
		6	(9.53) 8.25	4/62 to present, others job previous 6 years.
		6	1.52	F.P. P.O. and Dryer 6/66 to 3/72, polymerization 2/74 to present.
		6F	0.59	3/63 to present, except monomer operator 10/77-4/79.
		6	20.81	1960 to present.
		6F	7 = 9.63 (10.56) 8.70	11/75 to present.
		6	7 = 14.4 (15.02) 13.75	4/62 to present. Service operator jobs previous 4 years.
		6	1.60	11/75 to present.
		6	3.55	3/76 to 8/78 F.P. dryer, polymerization 8/78 to present.
		6	5.90	5/65 to present, service operator jobs additional 5 years.
		6	0.38	3/79 to present.
		6	6.91	4/77 to present, FEP service operator 2/75 to 4/77
		6	16.89	F.P. dryer 10/75 to 4/77, polymerization 8/78 to present.
		6	0.98	F.P. dryer and P.O. 2/75-5/76, some granular polymerization. F.P./disp. polymerization 4/79 to present.
		6	3.81	Service operator jobs 9/72-11/77. Polymerization 11/77 to present.
		6	3.23	8/76 to present

() Previous blood samples taken in June.

0-1 4
1-5 5
5-10 4
10-15 1
15-20 1
20-25 1
25-30 1

EID080734

1000178

ALP001333

<u>NAME</u>	<u>P.R. NO.</u>	<u>ZONE</u>	<u>ORGANIC FLUORIDE PPM</u>	<u>COMMENTS</u>
<u>Service Operator</u>				
	REDACTED	4	4.97	F.P. dryer and P.O. 6/66 to 12/69 Polymerization 10/77 to 10/78.
or		4	1.98	F.P. Dryer since 11/78.
am		4	4.84	F.P. Dryer and Disp. P.O. 9/76 to present.
		4F	2.24	Service Operator jobs 5/57 to present.
		4	1.03	
		4	2.92	12/78 to present F.P. Dryer, detailed to polymerization.
		4	0.50	3/79 to present all 3 jobs.
		4	1.04	
		4	1.80	F.P. packout.
		4	2.97	F.P. Dryer 12 years, F.P. P.O 8 years, other 3 years.
		4	3.89	12/72 to present F.P. Dryer and P.O.
		4	2.30	1/79 to present Disp. and Polymerization.
		4	1.78	F.P. packout.
		4	1.81	F.P. P.O. 11/76 to present, Details to polymerization.
<u>MONOMER OPERATORS</u>				
		7	0.35	
		7	0.39	
		7	0.08	
		6E	0.54	
		7	0.17	
		7	0.37	
		7	0.52	

000179

EID080735

NAME	P.R. NO.	ZONE	ORGANIC FLUORIDE PPM	COMMENTS	
<u>FEP OPERATORS</u>					
<u>Polymerization</u>					
	REDACTED	6	1.18 (1.36) 0.99	1976 to present. Additional exposure in homopolymers	
		6F	1.72	1976 to present. Additional exposure in homopolymers	
		6	2.71	Disp. 1964-1971; polymerization 1976 to present.	
		6	0.91	1976 to present.	
		6	2.10	1976 to present.	
		6	4.64	Disp. 10/60-11/63; polymerization 1976 to present.	
		6	3.70	1976 to present. Additional exposure to homopolymers	
		6	2.83 (3.61) 1.99	1976 to present.	
		6	1.95	1976 to present.	
		6	1.47	1976 to present.	
		6	4.96	1976 to present. Additional exposure in homopolymers.	
		6	4.52	10/77 to present. Additional exposure in homopolymers.	
		6	4.14	12/76 to present. Additional exposure in homopolymers.	
<u>Dispersion</u>					
		4	1.31	6/78 to present.	

RESEARCH

Research Chemists

EID080736

0.43

0.45

() Previous blood samples taken in June.

1-1 3
1-5 12
5-10
1-10
1-10

000180

AJP001335

NAME	P.R. NO.	ZONE	ORGANIC FLUORIDE PPM	COMMENTS
<u>Semiworks Laboratorians</u>				
REDACTED		6	0.44	5/70 to present.
		6	1.50	8/77 to present. Finishing operator 9/68 to 11/69, service operator 5/72 to 12/72, homopoly service operator 12/72 to 7/74, 8/75 to 11,
		6F	0.24	4/77 to present.
		6	0.70	2/75 to present.
		6 (0.46)	0.26	4/77 to present.
		6	0.30	7/69 to 10/72, 5/79 to present.
		6F	0.24	8/77 to present. Service operator 2/75 to 9/75.
		6 (0.72)	0.59	10/72 to present. Teflon exposure 9/59-4/62, service operator 3/63-2,

MONOMER OPERATORS WITH
FAST FINE POWDER/DISP.
POLYMERIZATION EXPOSURE

7	6.66	Polymerization 1/62 to 10/78 Monomer operator 11 months.
7	5.29	Exposure 5/62 to 5/77. Monomer operator 28 months.
7	5.64	Exposure 9/62 to 11/77. Monomer operator 22 months.

$\bar{x} = 5.86$

FOREMAN VOLUNTEER

0.69	Various jobs with C-8 10/56 to 3/63. Monomer operator 3/63 to 2/69. Foreman 2/69 to present.
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Total 12

() Previous blood samples taken in June.

JFDoughty:mps
10/10/79

0 - 1 8
1 - 5 1
5 - 12 3
10 - 15
15 - 20

000181

EID080737

ALP001336